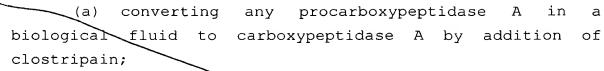
What is claimed is:

- A method of enhancing sensitivity and specificity of an assay measuring enzymatic activity in a sample comprising measuring enzymatic activity in the sample in the presence and absence of a specific inhibitor of the enzymatic activity.
 - 2. A method of measuring carboxypeptidase A levels in a biological fluid comprising:
- (a) contacting a biological fluid with a 10 carboxypeptidase A substrate in the presence and absence of a carboxypeptidase A specific inhibitor; and
- (b) measuring changes in optical density resulting from hydrolysis of the carboxypertidase A substrate by carboxypertidase A in the biological fluid in the presence and absence of the carboxypertidase A specific inhibitor.
 - 3. A method of diagnosing adute pancreatitis in a patient suspected of suffering from acute pancreatitis comprising:
- (a) measuring carboxypeptidase A levels in a biological fluid from a patient by detecting changes in optical density resulting from hydrolysis of a carboxypeptidase A substrate by any carboxypeptidase A in the biological fluid in the presence and absence of a carboxypeptidase A specific inhibitor; and
- 25 (b) determining whether the measured levels of carboxypeptidase A in the biological fluid of the patient are elevated over levels in biological fluid from a healthy control population.



^{4.} A method of measuring total carboxypeptidase A 30 levels in a biological fluid comprising:

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- (b) contacting the biological fluid with a 5 carboxypeptidase A substrate in the presence and absence of a carboxypeptidase A specific inhibitor; and
- (c) measuring changes in optical density resulting from hydrolysis of the carboxypeptidase A substrate by carboxypeptidase A in the biological fluid in the presence and absence of the carboxypeptidase A specific inhibitor.
 - 5. A method of diagnosing early stage pancreatic cancer in a patient comprising:
- (a) converting any procarboxypeptidase A in a biological fluid obtained from a patient to carboxypeptidase15 A by addition of clostripain;
- (b) measuring total carboxypeptidase A levels in the biological fluid by detecting changes in optical density resulting from hydrolysis of a carboxypeptidase A substrate by any carboxypeptidase A in the biological fluid in the 20 presence and absence of a carboxypeptidase A specific inhibitor; and
- (c) determining whether the measured levels of total carboxypeptidase A in the biological fluid of the patient are increased as compared to total carboxypeptidase A levels in 25 a healthy population due to elevated procarboxypeptidase A in't the biological fluid.

